

PETROLEUM STORAGE TANK RELEASE TRUST FUND

SUMMARY SITE ASSESSMENT

REQUEST FOR PROPOSAL



Kansas Department of Health and Environment

Bureau of Environmental Remediation

Storage Tank Section

Summary Site Assessment Guidelines

A Summary Site Assessment (SSA) and Remedial Design Plan (RDP) will be combined for this scope of work. The purpose of combining the SSA with remedial design activities is to expedite the investigation and remediation process in cases where a potential receptor is in close proximity to a contaminant source. SSA/RDP combined sites are considered high priority by KDHE; therefore:

- If the Remedial Design Plan (RDP) due date (contract sign date plus 385 calendar days) is not met, the vendor will be disqualified from bidding on future SSA/RDP projects.
- Exceeding an RDP report deadline by 30 days will be considered grounds for removing the consultant from the project. KDHE will recommend that the Owner/Operator terminate the contract and the next lowest bidder will be given the opportunity to complete the project. It will be the responsibility of the vendor to properly schedule field and laboratory activities (including appropriate bidding to cover rapid subcontractor turnaround) to ensure that the project tasks remain on schedule.

The goal of the SSA is to determine site specific subsurface lithology; determine the nature and approximate extent of contamination in subsurface soil and groundwater; determine the general direction of groundwater flow; identify all potential receptors; and provide the information necessary to direct further drilling and pilot testing. All applicable guidelines and definitions in the current version of the RDP Request For Proposal will also apply to the SSA. The SSA will consist of preparing the required workplan worksheet; completing the outlined scope of work in accordance with the RDP RFP; and preparing a report. **Following the review of the SSA Report, it may be determined by KDHE that the site does not present a significant risk to human health or the environment. KDHE reserves the right to discontinue the scope of work as outlined in the SSA/RDP bid package.**

A description of work and general requirements and procedures is as follows:

- The KDHE Summary Site Assessment Workplan Worksheet (SSAWW) (Attachment 1) will be completed by the consultant. and must be approved by KDHE before field work is initiated.
- Various subsurface investigative technologies may be included in the scope of work as outlined by the KDHE project manager. Groundwater and soil samples will be collected during the investigation. Groundwater samples will be analyzed for VOCs (full VOC scan including MTBE and EDB) and PAH's. Soil samples will be analyzed for benzene, 1,2 DCA, and TPH (OA-1/OA-2). All samples will be analyzed by a KDHE certified laboratory using KDHE approved analytical methods. The scope of work for the SSA phase is provided on the bid proposal sheets and in the worksheet entitled Site Specific Information.

- KDHE will either approve or submit comments for the SSA Report within **20** calendar days. The SSA Report must be approved by KDHE before the RDP phase of work is initiated.

The text of the SSA report will contain a brief description of the field work performed, a brief description of the subsurface lithology, the nature and extent of contamination, groundwater flow direction, details about the treatment and/or disposal of waste water and soil, and any recommendations concerning the remainder of the project based on the SSA. The following tables will be submitted using the formats outlined in the RDP RFP:

Table 1	Summary of Work Completed
Table 2	Water Well Information - This table will include: <ol style="list-style-type: none"> 1) the well owner's name; 2) Section, Township, and Range to three quarters (four quarters if well is sampled or located during the SSA, or if it is used as a public water supply); 3) use of each well using the description from Section 4 of the WWC-5 form that best describes the well use; 4) approximate distance between the well and the contaminant plume; 5) location of the well in relation to the contaminant plume and groundwater flow (e.g. down gradient, cross gradient). 6) Information about all wells within a 1/4 mile radius of the site will be collected by, conducting a search of water well records through the KDHE Bureau of water (BOW), discussing the location of public and private water supplies in the area with city and/or county personnel, and conducting a house-to-house reconnaissance of the area within the suspected extent of the groundwater contamination plume and 400 feet outside the suspected extent of the groundwater contamination plume if private wells are found or suspected to exist in the area. PWS wells should be designated with the same numbers assigned by the city, water district, or other well owner. All wells should be designated consistently throughout the report.
Table 3	Well Completion Information
Table 4	Groundwater Analytical Results
Table 5	Soil Field Screening and Laboratory Results
Table 6	Data from any other investigative technologies used. (If applicable)

The following figures will be submitted using the formats outlined in the RDP RFP:

Figure 1	Site Base Map
Figure 2	Groundwater Isoconcentration Maps
Figure 3	Groundwater Flow Map
Figure 4	Separate Phase Product Isopach Map
Figure 5	Soil Isoconcentration Maps

- Figure 6 Geologic Cross Section - A (through area(s) of highest detected contamination; must include the following:)
- 1) lithologic units of each boring
 - 2) all field screening data, laboratory analytical results and product thickness plotted relative to depth
 - 3) estimated water table
 - 4) potential receptors or flowpaths for contaminant/vapor migration
 - 5) vertical and horizontal scale bars with vertical exaggeration noted
 - 6) lithologic legend
 - 7) reduced map of the site with wells and borings plotted that depicts the orientation and labeled reference points for the sections
- Figure 7 Geologic Cross Section - B (only required if six or more borings advanced; same requirements as listed in Figure 6)

The following information will be provided in appendices using the formats outlined in the RDP RFP:

- Appendix 1 Drilling Logs
Appendix 2 KDHE Site Identification Forms
Appendix 3 KDHE Water Well Records
Appendix 4 Laboratory Data
Appendix 5 Field Notes
Appendix 6 Off-site Waste Handling Documentation and a table of On-site Waste handling Results

- The remainder of the scope of work will proceed as specified in the RDP RFP except that a Response/Approval deadline is set and only one round of groundwater sampling will be conducted during the RDP phase. This round of sampling will be performed after installation and development of additional wells.

The RDP scope of work will include installation of additional wells, pilot testing, additional soil and groundwater sampling, development of a Remedial Design Report, and development of a Remedial Design Plan.

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SSA FIELD WORKPLAN WORKSHEET

Site Name: _____ KDHE Project Code: _____

Vendor: _____ Vendor Contact: _____

Instructions: This form must be completed by providing the information requested below. Do not include any attachments with this worksheet other than those described herein.

I Site Information

Site Address: _____ Kansas _____
(Street) (City) (County)
Legal Description: _____ 1/4 _____ 1/4 _____ 1/4 _____ 1/4 Section _____ Township _____ Range _____ E / W

II Investigation Information

Check the general methodologies to be used: _____ Groundwater Survey _____ Soil Borings _____ Monitoring Wells

List the requested information where indicated:

A) Groundwater Survey:
Sample Extraction Equipment _____

Sample Analysis Equipment _____

Compounds for Analysis with Detection Limits (DL)

Benzene	DL= _____ ppb	Other: _____	DL= _____ ppb
Toluene	DL= _____ ppb	_____	DL= _____ ppb
Ethylbenzene	DL= _____ ppb	_____	DL= _____ ppb
Xylenes	DL= _____ ppb	_____	DL= _____ ppb

B) Drilling: (list primary equipment under column "A", under column "B", list drilling equipment to be used if auger refusal is encountered)

	A	B
Drill Rig	Brand/Model _____	_____
	Torque Rating _____	_____
Drill String	Type (Augers, etc) _____	_____
	O.D. /I.D. _____	_____
Borehole Size	_____	_____
Sample Collection Equip	_____	_____
Drilling Sample Frequency	_____	_____

C) Field Screening Instrument
Device (Brand / Type / Spec) _____
Calibration Standard _____
Calibration Frequency _____

D) Monitoring Well Development
Method (bailer, pump, etc) _____
Minimum well volume to be with drawn (Drilling Scenario "A") _____
Minimum well volume to be with drawn (Drilling Scenario "B") _____

E) Hydrogeologic Testing Methods: (list methods and number of tests)

Unsaturated Zone	_____	Number of tests	_____
	_____	Number of tests	_____
Saturated Zone	_____	Number of tests	_____
	_____	Number of tests	_____

F) Laboratory Analytical:

Soil Samples	Collection Equipment	_____
	Analytical Methods	_____
Water Samples	Collection Equipment	_____
	Analytical Methods	_____
Laboratory to Conduct Analysis		_____

G) Waste Handling Procedures - Briefly describe how soil and water waste will be handled, treated, or disposed of:

Soil _____

Water _____

H) Decontamination - Briefly describe decontamination equipment, methods and procedures to be employed:

III Site Maps and Photos

Note: All maps and photos must include a scale, north arrow and legend.

- 1) Attach a copy of a U.S.G.S. 7.5 minute quadrangle, scale 1:24,000, which depicts the general site location and the 1 mile radius area surrounding the site. The site must be highlighted or outlined for delineation.
- 2) Prepare and submit with this worksheet a site map in accordance with and containing the following information:
 - A Scale such that 1 inch is less than or equal to 50 feet for smaller sites and 1 inch is less than or equal to 100 feet for larger sites.
 - B Site property boundaries, buildings or other fixed objects, and street names.
 - C One site map will depict the site including a minimum of a 350' radius from the release. The other site map will depict the site including a minimum 500' radius from the release. Both maps will include the general use of surrounding properties identified; i.e., residential, industrial, business (indicate what type - fast food, service stations, etc.). List owners names relative to off - site properties.
 - D Tanks, lines, and pump islands, currently or formerly located at the site.
 - E General locations and depths of all utilities on and adjacent to the site from visual survey of site.
 - F If a Geoprobe Survey is requested: Proposed probe locations for at least the "Groundwater Contamination" scope of work. Include existing wells within 350' from the source. All wells should be designated in accordance with previous reports if available.
 - G If a Geoprobe Survey is not requested: Proposed boring and monitoring well locations instead of proposed geoprobe points must be indicated.
 - H Accessible easements within the specified area.
 - I Arrow depicting groundwater flow direction.

Include the most recent aerial photograph available showing the site location and the specified area; the maximum scale of the aerial photograph shall be 1 inch = 250 feet. The aerial photo must be an original print, a high quality color copy of an original print, or a blue-line. Prominent features (buildings, storage tanks, pump islands, existing wells, etc) should be denoted on the aerial photograph.

IV Field Personnel / Health and Safety Plan

List below the consultant's personnel and any subcontracting firms that will be involved in the investigation. Indicate each individual's name and position title (attach an additional sheet if necessary). If resumes documenting education, experience, and safety training certification have not been provided with the original bid package for all those listed, submit this information with this worksheet.

Name	Position/Title	Name	Position/Title
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Indicate whether a Health and Safety Plan has been prepared for this investigation: Yes _____ No _____